

Name \_\_\_\_\_

Period \_\_\_\_\_

1. Travis received a letter from his bank saying that his checking account balance fell below zero. His account transaction log is shown below.

CHECK NO.	DATE	DESCRIPTION OF TRANSACTION	PAYMENT	DEPOSIT	BALANCE	
---	10/17	Beginning Balance	---	---	\$367.50	
1125	10/18	CBC Audio (Headphones)	\$62.00		−62.00	
					\$305.50	Line 1
1126	10/22	NY Sport (Basketball Shoes)	\$87.00		−87.00	
					\$218.50	Line 2
Debit	10/25	Gary's Country Market	\$38.50		−38.50	
					\$180.00	Line 3
1127	10/25	Iggy's Skate Shop (Skateboard)	\$188.00		−188.00	
					\$8.00	Line 4
	10/25	Cash Deposit (Birthday Money)		\$20.00	+20.00	
					\$28.00	Line 5
Debit	10/30	McDonuts	\$5.95		−5.95	
					\$22.05	Line 6

- a. On which line did Travis make a mathematical error? Explain Travis' mistake.

- b. Correct the mathematical error Travis made and state his actual current balance.

2. The table below shows the temperature changes Monday morning in Bedford, New York over a 4-hour period after a cold front came through.

- a. If the beginning temperature was  $-13^{\circ}\text{F}$  at 5:00 a.m., what was the temperature at 9:00 a.m.?

Change in Temperature	
5:00 a.m. – 6:00 a.m.	$-3^{\circ}\text{F}$
6:00 a.m. – 7:00 a.m.	$-2^{\circ}\text{F}$
7:00 a.m. – 8:00 a.m.	$-6^{\circ}\text{F}$
8:00 a.m. – 9:00 a.m.	$7^{\circ}\text{F}$

- b. The same cold front hit Hartford, Connecticut the next morning. The temperature dropped by  $7^{\circ}\text{F}$  each hour from 5:00 a.m. – 9:00 a.m. What was the beginning temperature at 5:00 a.m. if the temperature at 9:00 a.m. was  $-10^{\circ}\text{F}$ ?

3. Evaluate each expression

a.  $2 - (-8)$

b.  $-3 + (-7)$

c.  $51 + (-60)$

d.  $-4 - (-2)$

e.  $-5 - 7$

f.  $-14 \div (-2)$

g.  $-9 \cdot (-8)$

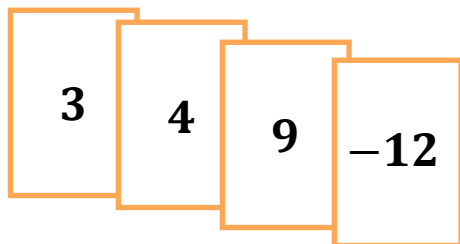
h.  $(-2) \cdot 5$

i.  $-30 \div 6$

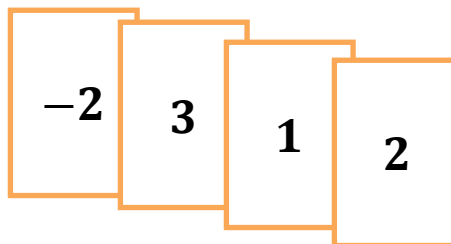
j.  $12 \cdot (-4)$

4. Juan and Mary are playing the integer card game. The cards in their hands are shown below:

Juan's Hand  
3, 4, 9, -12



Mary's Hand  
-2, 3, 1, 2



- a. What are the scores in each of their hands?

Juan's score:

Mary's score:

- b. Juan picks up another set of cards that is exactly like each card in his hand. What is his score now?

- c. Which of the following would make Mary's score equal to Juan's new score? Place a check mark ✓ by all that apply.

\_\_\_ Double every card in her hand

\_\_\_ Take away her 3 and 1

\_\_\_ Pick up a 4

\_\_\_ Take away her 2 and -2

\_\_\_ Pick up a 7 and -3

\_\_\_ Pick up one of each of Juan's cards

Explain why your selections will make Juan's and Mary's scores equal.

5. What value of  $a$  will make the equation a true statement? Explain/Show work.

$$-\frac{3}{4} + a = 0$$

6. Last week the temperature in Bellingham, WA decreased an average of  $1.5^{\circ}\text{F}$  each day for 5 days.
- If the temperature at the beginning of the 5 days was  $30^{\circ}\text{F}$ , what was the temperature at the end of the 5 days?
  - What was the total change in temperature from the beginning temperature to the ending temperature?
7. The water level in Ricky Lake changes at an average of  $-\frac{9}{16}$  inch every 3 years.
- Based on the rate above, how much will the water level change after one year? Show your work.
  - How much would the water level change over a 7-year period?
  - When written in decimal form, is your answer to part (b) a repeating decimal or a terminating decimal? Justify your answer using long division.